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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,506	10/16/2003	Louise C. Sengupta	JSF001-0068D1/WJT08-044D1	9036

7590 01/15/2008
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EXAMINER

LOPEZ, CARLOS N

ART UNIT	PAPER NUMBER
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1791

MAIL DATE	DELIVERY MODE
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01/15/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/687,506

Applicant(s)

SENGUPTA ET AL.

Examiner

/Carlos Lopez/

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 24-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 24 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/30/07 has been entered.

Response to Amendment

The declaration under 37 CFR 1.132 filed 10/30/07 is insufficient to overcome the rejection of claims 1-11 and 24-25 based upon 35 USC 102(e) as set forth in the last Office action because MPEP 2136.04 notes that:

Therefore, when the unclaimed subject matter of a reference is applicant's own invention, applicant may overcome a prima facie case based on the patent, U.S. patent application publication>,< or international application publication, by showing that the disclosure is a description of applicant's own previous work. Such a showing can be made by proving that the patentee, or the inventor(s) of the U.S.patent application publication or the international application publication, was associated with applicant (e.g. worked for the same company) and learned of applicant's invention from applicant. In re Mathews, 408 F.2d 1393, 161 USPQ 276 (CCPA 1969).

The affidavit does not show the relationship between the applicant of the application and the patentees of the applied references, nor shows that the patentees learned of applicant's invention from the applicant.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4-11, and 24-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhu et al (US 6,404,614). Zhu discloses a method of making electronically tunable dielectric material. The method comprises of providing a layer comprised of tunable dielectric material such as BSTO with two metal oxides such as Mg_2SiO_4 and MgO as tunable film of a varactor (See Col. 4, lines 25ff to Col.6, lines 5ff). As further noted in Col. 5, lines 22ff, the metal oxides form about 1 to 80% weight of the particles. As for the claimed sintering the mixed particles, it is deemed as being an inherent step done by Zhu in order to ascertain that the tunable materials provide improved sintering characteristics as noted in Col. 6, lines 4ff.

As for claims 4-6, see Col. 5, lines 20ff disclosing the claimed weight percentages.

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As for claim 7, Zhu does not disclose the addition of more than two metal oxides.

As for claims 8-10, Col. 5, lines 30ff discloses the claimed weight ratios.

As for claim 11, see above noting BSTO, barium strontium titanate.

As for claims 24-25, Col. 5, lines 54ff notes the claimed tenability.

The applied reference has a common inventor with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Claims 1-7, 11 and 24-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Sengupta (US 6,737,179). Sengupta discloses a method of making electronically tunable dielectric material. The method comprises of providing a film comprised of tunable dielectric material such as BSTO with two metal oxides such as Mg_2SiO_4 and MgO (See Col. 5, lines 21ff). As further noted in bridging paragraph of col. 5-6, the metal oxides form about .25 to 80% weight of the particles. As for the claimed sintering see Col. 6, lines 60ff disclosing sintering of the materials.

As for claims 2-3, Col. 5, lines 50ff discloses the claimed particles sizes.

As for claims 4-6, as noted above the claimed weight percentages are encompassed by Sengupta.

As for claim 7, Sengupta notes in the abstract that other metals “may” be added thus showing that the dielectric material may consist of essentially two metal oxides.

As for claim 11, see above noting BSTO, barium strontium titanate.

As for claims 24-25, in view that Sengupta's material has a tunability of from about 5 to 50% at 10 V/micron it would be inherent that it would also have the claimed tunability of at least 25% or 30% at 8V/micron.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Claims 1-7, 11 and 24-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Chiu et al (US 6,154,895). Chiu discloses a method of making electronically tunable dielectric material. The method comprises of providing tunable ceramic material comprised of tunable dielectric material such as BSTO with at least one metal oxide such as Mg_2SiO_4 and MgO (See Col. 4, lines 15ff). It is noted that the phrase “at least one metal oxide” encompasses two metal oxides as claimed by applicant. In regards to the claimed weight percentage of the metal oxides, col. 4, lines 45ff disclose the metal oxides form about 1 to 80% weight of the particles. As for the

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claimed sintering see Col. 5, lines 40ff disclosing calcining the materials at about 800°C to 1200°C, which is deemed as the claimed sintering of the materials.

As for claims 2-3, Col. 5, lines 39-41f discloses the claimed particles sizes.

As for claims 4-6, as noted above the claimed weight percentages are encompassed by Chiu.

As for claim 7, Chiu notes in Col. 4, lines 55ff that other metals "may" be added thus showing that the dielectric material may consist of essentially two metal oxides.

As for claim 11, see above noting BSTO, barium strontium titanate.

As for claims 24-25, see col. 5 lines 9-1 showing tunability from about 20% to 75% at 8V/micron.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Carlos Lopez/ whose telephone number is 571.272.1193. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571.272.1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Carlos Lopez/
Primary Examiner
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CL